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and Correctional Services**

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**Ministère de la Sécurité
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Ontario

Date: January 11th 2006

CFS File No.: 05-8959

Originator's File No.: 89-439

E-mail:

Telephone:

Fax:

Reference: Roger COLEMAN
Wanda McCoy

For: Mr Robert Crouch Jr.
Counselor to Governor Mark R. Warner
Commonwealth of Virginia

Copies to: Dr Edward Blake, Forensic Science Associates
Mr James McCloskey, Centurion Ministries

Reported by
Jonathan Newman, B.Sc., Biology Section Head

**Please refer to my report dated January 5th 2006 and the CFS "Protocol for DNA Analysis"
dated December 14th 2005**

PURPOSE

Comparison samples from Roger Coleman and Wanda McCoy were tested in order to be able to:

- Determine whether Roger Coleman can be excluded as the source of the major DNA profile from the DNA extract from the Wanda McCoy vaginal swab stick sperm cell fraction (4-1SP).
- Confirm the source of the vaginal swab samples (4-1).

ITEMS/DESCRIPTION/RESULTS

Items for DNA Analysis

- Item 6 11 DNA extract from the Roger Coleman reference blood
- Item 7 10A DNA extract from blood on the Wanda McCoy sweater area A
- Item 8 10B DNA extract from blood on the Wanda McCoy sweater area B
- Item 9-1 11 Reference sample, dried bloodstain from Roger Coleman

Methods

1. A portion of the bloodstain (item 9) was subjected to a phenol chloroform DNA extraction procedure.
2. Each sample was subjected to a quantitative PCR assay (CFSHumRT) in order to determine the amount of human DNA present.
3. DNA from each item was amplified in the STR Profiler Plus™ system.
4. The DNA profiles generated were interpreted and compared.

Results

Quantification

Item	Description	Sample volume	DNA concentration	Total amount
6	11 Roger Coleman	10µL	396pg/ µL	3960pg
7	10A Wanda McCoy	10µL	388pg/ µL	3880pg
8	10B Wanda McCoy	10µL	189pg/ µL	1890pg
9-1	11 Roger Coleman	36µL	1141pg/ µL	41076pg

STR Amplification

1000pg of each item was amplified using the Profiler Plus™ system and a DNA profile was obtained from each item.

PROFILER PLUS™
AMPLIFICATION RESULTS

CFS ITEM #	6	7	8	9-1
Description	11	10A	10B	11
LOCUS	Extracted DNA	Extracted DNA	Extracted DNA	Bloodstain
D3S1358	14,17	16,16	16,16	14,17
vWA	16,17	16,17	16,17	16,17
FGA	20,24	21,25	21,25	20,24
D8S1179	13,14	12,13	12,13	13,14
D21S11	28,30	28,29	28,29	28,30
D18S51	14,16	12,14	12,14	14,16
D5S818	11,12	11,13	11,13	11,12
D13S317	8,12	9,12	9,12	8,12
D7S820	12,14	7,8	7,8	12,14
AMELOGENIN	XY	XX	XX	XY

CONCLUSIONS

1. Roger Coleman (CFS item 6 and 9-1; FSA item 11) cannot be excluded as the source of the major DNA profile from the DNA extract from the Wanda McCoy vaginal swab stick sperm cell fraction (4-1SP).

The probability¹ that a randomly selected individual unrelated to Roger Coleman would coincidentally share the observed DNA profile is estimated to be 1 in 19 million.

2. Comparison of the DNA profile obtained from the DNA extract from the Wanda McCoy vaginal swab stick epithelial cell fraction (4-1EC) to the DNA profile obtained from the DNA extracts from bloodstains on the Wanda McCoy sweater area A and B (CFS item 7 and 8; FSA items 10A and 10B) indicates a common source i.e. Wanda McCoy.
3. Additional DNA not attributable to either Roger Coleman or Wanda McCoy was detected in the DNA extracts from the Wanda McCoy vaginal swab stick epithelial cell fraction (4-1EC) and vaginal swab stick sperm cell fraction (4-1SP).

Conclusion Notes

- ¹: Based upon data from a sample of the Ontario population (Asians, Blacks, Caucasians, East Indians, and Northern Ontario Natives).

PROFILER PLUS™

COMPARISON

CFS ITEM # Description LOCUS	1 4-ISP MAJOR	6 and 9-1 11 Roger Coleman
D3S1358	14,17	14,17
vWA	16,17	16,17
FGA	20,24	20,24
D8S1179	13,14	13,14
D21S11	28,30 or 28,31.2 or 30,31.2	28,30
D18S51	14,* or 16,* or 17,*	14,16
D5S818	11,12	11,12
D13S317	8,12	8,12
D7S820	9,* or 12,* or 14,*	12,14
AMELOGENIN	XY	XY

* Accounts for the potential loss of an allele.

NOTES/REMARKS

Technical assistance has been provided to the writer of this report, in accordance with the policies and procedures of the Centre of Forensic Sciences, in the examination and analysis of items discussed in this report.

05-8959
January 11th 2006

CONTINUITY

Item Receipt

1. Items 6 to 9 were delivered to the CFS on January 10th 2006 by Pamela Newall; processing commenced on the same day.
2. On opening the box containing extracted DNA samples 6, 7 and 8 (FSA items 11, 10A and 10B) it was noted that items 6 and 8 (FSA items 11 and 10B) were labeled as follows:

CFS item 6: written on microfuge tube "04-439 11 Roger Coleman"

CFS item 8: written on microfuge tube "04-439 10B Wanda McCoy"

3. All item transfers within the CFS have been recorded in the Laboratory Information Management system.

Item Disposition

DNA remaining in items 1 to 9 in addition to the original packaging including the original microfuge tubes will be repackaged for return to the Commonwealth of Virginia as per the Post Execution Testing Agreement dated December 9, 2005.

ATTRIBUTION

Attribution of items to an individual or location is based on information provided to the Centre of Forensic Sciences.

ATTACHMENTS

Attached to this report, please find:

1. List relating laboratory item numbers to submitter item numbers / descriptions
2. Copies of photographs of the items as received at CFS
3. Copies of all analytical work notes generated in this case to date
4. DNA Information Sheet and Glossary